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ABSTRACT

In an attempt to understand the determinants of early sexual activity, a series of papers were completed using data on 15 and 16-year-olds from the 1981 National Survey of Children. These five papers focus on the association between early sexual activity and, respectively, household structure; television viewing; sex education; race; and parent-teen communication. Following a description of the data used in the analyses, this document summarizes the results of each of the five papers. The first paper finds that children living in single parent households are more likely to initiate early sexual activity. Among white females, sexual activity is affected by whether the mother dates frequently or is remarried (greater likelihood of early activity); among black females sexual activity was more than twice as high for daughters living apart from their fathers. These data indicate that sex and race differences in the family determinants of early sexual activity are substantial. Among black males the results were similar to those for white females; among white males activity was greater for those living with their biological fathers. The second paper considers the effects of television and finds that viewing is a weak predictor of sexual activity but may be more influential among more vulnerable groups and is likelier to be important for males. The third paper considers racial differences in the timing of intercourse and finds that the data most favors a difference in attitudes and perceptions between blacks and whites, rather than a socioeconomic explanation, leading to earlier sexual activity. The fourth paper considers the influence of sex education and finds that sex education programs reduce sexual activity, and that they supplement, rather than interfere with, the influence of parents. The fifth paper finds that daughters of more traditional parents are less likely to have early sexual experiences if they speak to their parents about it, and the effect is similar with sons. Several statistical tables are appended. (CG)

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Starting Early: The Antecedents of Early Premarital Intercourse

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Starting Early: The Antecedents of Early, Premarital Intercourse

The initiation of premarital sexual intercourse is an important transition with potential health, social, and economic consequences for the young persons involved, their families and society. Those teens who initiate sexual activity at younger ages are less likely to use contraception (Zelnik and Shah, 1983). Consequently, teens under age 18 when they begin having intercourse are more than twice as likely to become pregnant within two years compared to teens aged 18 to 19 (Zabin, Kantner and Zelnik, 1979). Pregnancies experienced by younger women are particularly likely to be unwanted and are substantially more likely to end in abortion.

Negative social and economic consequences have also been documented for adolescents who bear and raise the child themselves. Teen parents tend to complete fewer years of schooling than those who delay parenthood into their twenties. They also tend to have larger numbers of children, to face a higher probability of being a single parent, to experience poverty more frequently, and to be disproportionately represented on welfare. Moveover, teen mothers are less likely to obtain appropriate prenatal care and are more likely to deliver low birth weight babies than older mothers (see Moore and Burt, 1982, for a review).

Researchers have yet to demonstrate negative psychological and social effects from early sexual activity apart from

pregnancy; however substantial increases in the incidence of venereal diseases may be related to the earlier and more widespread occurrence of non-marital sexual activity.

Thus early sexual activity, especially when it occurs without effective contraceptive practice, can represent a threat to the development and well-being of adolescents. This is particularly true for younger adolescents, who have proven to be less effective contraceptors and who are more vulnerable to poor outcomes in the event of a pregnancy.

In an attempt to understand the determinants of early sexual activity, a series of papers were completed using data on 15 and 16-year-olds from the 1981 National Survey of Children. These five papers focus on the association between early sexual activity and, respectively, household structure; television viewing; sex education; race; and parent-teen communication. The results of each paper are summarized below, following a description of the data employed in these analyses.

DATA

These analyses are based on data for 15- and 16-year-olds interviewed in 1981 in the National Survey of Children. This survey is the second wave of a longitudinal study of U.S. children designed to assess the physical, social, and psychological well-being of different groups of American children. The first wave, conducted in the fall and winter of 1976-77, was based on a multi-stage stratified probability sample of households in the continental United States containing

at least one child in the age range of seven through eleven years at that time (born between September 1, 1964 and December 31, 1969). Blacks were oversampled permitting more detailed analyses by race. Altogether, data were gathered on 2,301 children in 1,747 families. Weights were developed to take account of oversampling by race, as well as the number of eligible children in the family and minor discrepancies between sample and census distributions on age, sex, race, and residence.

The second wave of the survey was conducted in the spring and summer of 1981. It was a follow-up of a subsample (N=1,423) of the children, by then aged 11-16. The follow-up focused more specifically on marital disruption and its effects on children. For this purpose, the subsample was chosen to include all children in disrupted families and intact families experiencing high conflict at the first interview, plus a subsample of those in low or moderate conflict families. Roughly half the children were in each of these broad groups. Additional weights were developed to take account of the subsampling procedures so that national estimates could again be made.

In each survey, interviews were conducted with the eligible child and the parent most capable of providing information about the child, usually the mother. A follow-up study of schools attended by the children in each survey was also carried out.

To control interview costs, it was necessary to conduct the follow-up survey by telephone. In order to ensure that the quality of the data was not affected by this, an experiment was

conducted. In a random sample of 250 metropolitan interviews, half were conducted by telephone and half were conducted in person by the same pool of interviewers. Comparisons of these two subsets revealed no consistent or sizeable differenes in the distribution of the variables, response rate, reported quality of the interview, length of interview time, or response bias.

In the 1981 survey, all of the respondents aged 15 and 16, males as well as females, were asked about the sexual experience of their friends and about their own sexual and pregnancy experience. One hundred and twenty of the 461 respondents in this age range indicated that they had had sexual intercourse.

Although overall data quality appears to be very good, one potential problem has been found, namely, there may be under-reportng of sexual activity on the part of 16-year-old females. Among males, the proportions reporting that they had had sexual intercourse were 21 percent at age 15 and 38 percent at age 16. Zelnik and Kantner (1980) report 56 percent for 17-yead-olds, so the data for males appear to be about right, assuming a steady increase. Among females, 16 percent of the 15-year-olds and 20 percent of the 16-year-olds report having had sex, compared with 18 percent and 29 percent in the 1982 National Survey of Family Growth. Studies of sensitive topics are often handicapped by data problems; thus it is important to bear in mind that the dependent variable is a measure of the proportion of youth who <u>report</u> having had sexual intercourse.

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"Starting Early: The Antecedents of Early Premarital Intercourse," a paper by Kristin A. Moore, James L. Peterson, and Frank F. Furstenberg.

A number of researchers working with different samples have reported that the incidence of sexual activity is higher among families headed by a single parent. The same pattern is found in the National Survey of Children for blacks and for white females. Adolescents living with their biological or adoptive parents are less likely to initiate permarital sexual activity than those living with only one parent or with neither parent. Among white males, however, those youth living with their fathers were found to be more likely to be sexually experienced.

A number of hypotheses to explain this association were explored, including whether the incidence of sexual activity is related to the economic effects of marital disruption, and whether the attitudes of single parents might be different and thus explain the family structure effect. The example of parental dating was also hypothesized as a possible role model for non-marital sexual activity. In addition, whether single parents supervise their children's activities less effectively was considered, as was the possibility that parent-child relationships might be undermined by the experiences before and after marital disruption. These possible explanations for the associations between family structure and precocious sexual activity were operationalized using data from both the child and parent interviews in both 1981 and 1976. The sample was divided by the sex and race of the adolescent and a series of multiple

classication analyses were run for each race-sex group to see whether the sexual activity-family composition association would be modified in models explicating the several hypotheses.

Among white females, the association between family structure and sexual activity appears to be moderated by whether the mother dates frequently or has remarried. Daughters of single mothers who do not report that they date frequently are no more likely to be sexually active than daughters living with both biological or adoptive parents, while daughters of remarried and dating mothers are significantly more likely to be sexually experienced themselves. Sexual activity was also less likely among teens living in neighborhoods described as excellent or very good for children, among teens who aspire to graduate from college, among daughters of parents with traditional family attitudes, and among teens experiencing family disruption at an early age; however none of these associations were found to moderate the initial relationship between family structure and early sexual activity.

Among black females, the proportion sexually active was more than twice as high for daughters living apart from their fathers. Although only 12 young black women were living with their biological or adoptive fathers, among these young women only 15 percent were sexually experienced compared to 38 percent among those adolescents no longer living with their fathers. (Undermined by the small sample size, this relationship failed to reach statistical significance, as did most of the associations among the black sub-samples. Consequently, the

effects reported must be viewed as tentative. Nevertheless, they are very interesting.) Unlike what was found among whites, among black female teens, the initial association faded dramatically when parental education, family income, neighborhood quality, and the young woman's educational aspirations were controlled. The degree of affection between the mother and daughter was also found to be strongly related to the probability of early intercourse among black females, and controlling for this variable also nearly eliminated the association between early sexual activity and family structure. Two other variables were found to predict early intercourse; however neither was found to moderate the association between family composition and sexual activity. Black females described as troublesome at the time of the 1976 interview were significantly more likely to be sexually experienced, while those aspiring to complete college were significantly less likely.

The association between family structure and early sexual activity was also quite strong among black male adolescents, and, like white females, it does not disappear in any of the equations. Also like white females, the likelihood of having had coitus is higher among those whose mothers date frequently and those who do not aspire to a college education. Surprisingly, intercourse is also higher among those black males with employed mothers who do not leave their sons unsupervised. Although sexual experience is more common among black youth described as troublesome in 1976, those whose parent expresses

traditional attitudes about family, and those whose parents report they always monitor their son's whereabouts, none of these associations reached statistical significance.

The most intriguing result in some ways is that found for white males, among whom sexual activity seems to be more common when the son resides with his biological or adoptive father. Although sampling or methodological problems are a possibility, other anticipated associations were found. For example, those aspiring to complete college are less likely to have initiated sexual activity, while those described as troublesome in 1976 are more likely. Also, those white males living with neither parent are the most likely to be sexually experienced. Thus, we are inclined to regard this as a result that merits further exploration. A potentially important possibility is that the reason there is no association is that fathers are much less concerned about the sexual activity of their sons than they are that of their daughters. Related results indicate that both the presence of the father and the son's closeness to his father affect the probability of deviant behavior. Perhaps fathers are more involved in monitoring deviant behaviors such as alcohol and drug use because they perceive them as dangerous to their sons while they perceive no comparable risk associated with their son's sexual behavior. Further research with parents is needed to explore this possibility.

One conclusion that seems well warranted on the basis of these analysis is that race and sex differences in the family determinants of early sexual activity are substantial. Thus it

seems crucial to analyze the several groups separately when this issue is addressed, despite the fact that sample sizes are diminished by this procedure.

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"Television Viewing and Early Initiation of Sexual Intercourse: Is There a Link?," a paper by James L. Peterson, Kristin A. Moore, and Frank F. Furstenberg, Jr.

Sexuality, as portrayed on television, is a broad topic that includes suggestive and erotic behavior, gender roles, intimacy and affection, and marriage and family life. As such, the picture of sexuality presented by most programs is often distorted, and values are conveyed that many parents find inappropriate. Research has already demonstrated a link between the viewing of violent television programs and antisocial behavior in children, at least under some circumstances. The question has arisen, therefore, whether television viewing might also affect sexual behavior, in particular leading to the early initiation of sexual activity.

Several reasons have been advanced as to why the sexual content of television programming should have an effect on children: the consistency of sexual messages projected by television programming; the adult nature of most of the programming children watch; children's limited access to countervailing views; and the realism of most television programming (Roberts, 1982).

Drawing on the research on television viewing and violent behavior, we can suggest several mechanisms by which television might affect sexual behavior: by imitation or modeling; by the disinhibition of existing behavioral tendencies; by arousing latent behavioral tendencies; by providing information, ideas, or behavioral scripts that serve to socialize children; and by catharsis or the release of feelings or tension. Given the pervasiveness of sexually oriented messages in television, it could be argued that by all but the catharsis mechanism watching more television, or watching television with explicit sexual content, would be expected to raise the probability of sexual activity.

In this paper we test the specific hypothesis that watching a lot of television or watching television with a high degree of sexual content contributes to the early initiation of sexual activity among adolescents. Limitations in the data preclude the consideration of a broader range of consequences of television on children's learning about sexuality, or the rigorous testing of the various mechanisms by which television may have its effect.

The overall results do not provide much support for the hypothesized link between amount of viewing and sexual activity. For females there is no bivariate relationship between the amount of television viewing at Wave 1 and the subsequent initiation of sexual activity. For males, a moderate relationship does appear, but it is curvilinear -- the lowest prevalence rate was found among moderate, rather than light or non viewers.

Data on the sexual content of programs watched are available in the form of respondents' mentions of their favorite programs, bur only for Wave 2. A mild positive association between the sexual content of the favorite program and sexual experience is found for girls; for boys, the highest experience rates are actually found for those whose favorite programs have no sexual content. The meaning of the association among girls is unclear, however, because the causal ordering of events is not known. Being sexually experienced could lead to watching programs with higher sexual content as easily as the reverse.

It could be that television viewing has a strong effect on sexual experience only for certain subgroups or only under certain conditions. To check on this possibility, we examined the relationship between sexual experience and television viewing within each category of each of several variables measuring characteristics of the child, the parent, and the parent-child relationship. We expected that a strong relationship might emerge for some of the subgroups, such as children of lower intelligence or lower self-esteem, or children who do not discuss or watch television with their parents. For the most part the expected associations failed to emerge. No significant correlations between sexual experience and television viewing emerged for any of the subgroups of females. Two sets of large and significant correlations did emerge for boys: television viewing was positively related to sexual experience for boys who did not watch television with their parents, and negatively related for those who did watch with

their parents; and the correlation was positive for those with moderate educational aspirations, and near zero for those with high aspirations. Curiously, and unexpectedly, the correlation was strongly negative for those with the lowest aspirations.

The mediating variables themselves had moderate to strong associations with sexual activity without regard to television viewing, and these associations were almost always in the expected directions. Thus sexual experience was associated with characteristics such as lower educational aspirations, lower intelligence, watching television alone, not discussing television with parents, and having parents with permissive sexual attitudes.

Methodologically, improvements could be made in the design of future studies to more rigorously test the hypotheses about possible linkages between television viewing and sexual activity. In particular, more precise measures of exposure to the sexual content of television programming, perhaps through the use of viewing diaries, could be tried. Also, a broader range of measures of sexual activity are needed that include age at first intercourse, frequency of intercourse, number of partners, as well as pre-coital sexual behaviors.

Within the limitations of the data from the National Survey of Children, several hypotheses can be made that deserve further research. To the extent that television viewing is a predictor of sexual activity, it is probably a weak one. Even with the refinements in methods suggested above, we do not expect a strong overall relationship to emerge. However, such a

relationship may emerge more strongly for subgroups of the population that are more vulnerable to the effects of television, such as the less intelligent, or those whose viewing is not monitored or interpreted for them by parents. Finally, the relationship is likely to be stronger for boys than for girls. Because the social and economic costs of pregnancy are less for boys, their sexual activity may be more subject to the influence of weaker forces such as television viewing.

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"Exploring Race Differences in the Timing of Intercourse," by Frank F. Furstenberg, Jr., S. Philip Morgan, Kristin A. Moore, and James L. Peterson.

Researchers have long been aware of sizeable differences between blacks and whites in the prevalence and timing of premarital sexual behavior, yet have disagreed over the origin and meaning of these differences. The disparity is especially large among younger teens where the proportion of sexually active blacks is nearly three times as high as for whites. The racial differential has declined recently, due to a larger increase in the level of sexual acitivity among whites than among blacks; still, the incidence of sexual activity continues to be considerably higher among blacks, especially at younger ages.

Accounting for these racial differences has been both a politically controversial and an analytically difficult task.

Explanations can be grouped into several types that are not necessarily mutually exclusive. Some explanations have been built on observed or hypothesized biological differences in puberty or fecundity at young ages. A second line of explanation links black/white differences in the timing of sexual behavior to the disadvantaged socioeconomic position of blacks. A related explanation looks not at socioeconomic disadvantage per se, but at factors associated with disadvantage as the cause of early sexual experience. Such factors include single-parent families and poor school performance. Finally, some social scientists believe that the higher rates of adolescent sexual activity among blacks reflect different sexual norms, ones that are more tolerant of, if not altogether approving, of early sexual activity and childbearing.

This paper presents analyses of data from the National Survey of Children that bear on the validity of these varying explanations. While we cannot claim to disprove any of the explanations, the evidence partially supports the socioeconomic explanation, but is most consistent with the normative view.

The biological explanation cannot be tested with our data, since we do not have measures of hormone levels or pubertal development. However, other researcchers have failed to find evidence of race differences in hormone levels. Also, a relationship between hormone levels in girls and sexual behavior has not been noted, while several researchers have reported

sexual activity among young black males that precedes puberty. Hence the weight of the evidence suggests that the biological explanation is an unlikely one.

The socioeconomic explanation is given some support by the data. Low mother's education and low family income are associated with early intercourse and these variables partly attenuate the race effect. However, the race effect remains strong even with these controls, indicating that this explanation is far from complete.

The third explanation, that factors associated with low socioeconomic position rather than socioecenomic status itself accounts for race differences is not supported by this analysis. The presence of the father, his employment status, and the mother's work status do not affect the differential in teen sexual behavior. Likewise, the respondent's school performance and educational goals are unable to sharply attenuate the race difference in sexual behavior.

Of all the explanations, the data are most consistent with that based on differences in subgroup attitudes and perceptions. If there are normative differences between blacks and whites on the aceptability of early interourse, then we might expect these differences to be most sharply drawn in segregated schools, and this is just what the data show. Moreover, blacks are much more likely to have peers whom they report as sexually active. Controlling for both of these effects considerably weakens the race differences, lending support to the normative argument. The normative argument is given further support by findings that

black youth are more likely to report an expected age at parenthood that is less than or equal to their expected marriage age; that black youths' mothers are more likely to approve of living together prior to marriage; and that these race differences are most pronounced among those in segregated schools.

It should be pointed out that these attitudes are not related to the likelihood of ever having had intercourse at the individual level (controlling for sex and race). These results suggest that the normative pressure to initiate sex operates primarily at a community level, though it is difficult to demonstrate this interpretation convincingly with the data at hand.

In conclusion, the data are most consistent with a contextual explanation based on differences in subgroup attitudes or norms, though socioeconomic variables also provide part of the explanation. Further research examining the normative difference explanation more rigorously is warranted.

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"Sex Education and Adolescent Sexual Behavior," by Frank F. Furstenberg, Jr., James L. Peterson, and Kristin A. Moore.

Sex education in the public schools is a controversial subject, despite the large majority of Americans that has favored such programs since the 1940's, and the increasing implementation of such programs in the past decade or so. A

number of critics argue that classroom instruction may actually promote sexual activity, and others have begun to question the efficacy of sex education on other grounds. A number of recent studies studies suggest that sex education does not promote precocious sexual intercourse, an important conclusion in need of further validation. However, little other systematic data exist on the relationship of sex education programs to adolescent sexual behavior and pregnancy, a situation that undermines attempts to assess the promise of sex education as a preventive strategy.

This paper takes a fresh look at the association between sex education and sexual behavior, using data from the National Survey of Children. Although these data do not permit tests of causal hypotheses because they contain no retrospective questions on dates of onset of sexual activity or dates of sex education, they do allow us to look for patterns of association that are either consistent with or inconsistent with such hypotheses.

Our analysis is based on a set of questions asked of the nearly 500 15- and 16-year-olds in the sample. They were asked how many of their friends were sexually active; if they themselves had ever had sexual intercourse; whom, if anyone, in their family they talked to about sex; and if they had ever had a course on sex education at school.

There are inevitably some limitations in the data. As noted, with the cross-sectional design and lack of retrospective questions, we cannot test for a causal link between sex

education and behavior. Moreover, the question on sex education is not very specific, permitting the respondent some latitude in interpretation. Finally, self-reports of sexual experience are subject to response bias, most often in the direction of underreporting.

Sex education and sexual experience. The data show that the overall reported prevalence of sexual intercourse is about 50 percent higher among youth who did not have a course in sex education (25 vs. 16 percent). This result is consistent with the notion that sex education is effective at reducing sexual activity; but there are other possible interpretations. For example, youth exposed to sex education programs that advocate postponement of sexual activity might be more likely to underreport their level of sexual experience. To narrow the range of interpretation, we tested this association in a number of ways.

First, the association was examined within race/sex subgroups. The negative association between sex education and sexual activity held up for all subgroups except black males. Indeed, the pattern of association was actually reversed slightly for black males -- 37 percent without sex education were sexually experienced, compared with 41 percent for those with sex education. Since many black males initiate intercourse at very young ages, sex education may be offered too late to affect them greatly.

Second, the association was only diminished slightly in a multivariate analysis that held constant a variety of background

factors that might have created a spurious connection between the two variables: family income, mother's education, the mother's age at first birth, family structure, and community size.

Finally, we reasoned that sex education programs, usually of limited duration, are likely to be less influencial than peers, so that the association between sex education and sexual experience will be weaker for those with many sexually active friends. Such was the case among blacks, but among whites the association held up regardless of the reported level of sexual activity among friends.

Families as a source of sex information. The claims of some critics that sex education programs erode the influence of parents are not supported by our data. Adolescents who report that they received sex education at school were neither more nor less likely to say they usually could talk to their parents about sex. Further, both sex education programs and the ability to discuss sexual matters with parents were individually associated with a lower prevalence of sexual intercourse, although instruction at school is more strongly related to postponement of sex than is the ability to communicate about sex with parents. The lowest prevalence of all was associated with the joint occurrence of sex education and communication with parents.

Although the efficacy of sex education cannot be demonstrated with these associational data, the results are at least consistent with the proposition that sex education

programs reduce the level of sexual activity, and that they supplement, rather than interfere with the influence of parents. The association is robust under a variety of controls, and is attenuated in expected ways for specific population subgroups -- black males and those with many sexually active friends (at least among blacks). The difficulty of establishing causality points to the urgent need for the collection of retrospective or, preferably, longitudinal data designed to aid intelligent planning in an area that is badly in need of concerted social action. It is also crucial to demonstrate whether and under what conditions sex education can serve to lower the incidence of early pregnancy.

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"Family Attitudes and the Occurrence of Early Sexual Activity," by Kristin A. Moore, James L. Peterson and Frank Furstenberg, Jr.

Parent-child communication is often suggested as an approach to lowering the incidence of early sexual activity or enhancing contraceptive practise, and a number of researchers have found modest support for this recommendation. Others, however, have reported that parental communication is infrequent, incomplete, and without much impact. It is generally assumed by researchers and policy makers that parents are fairly uniform in their opposition to premarital sexual activity; yet a significant liberalization in the attitudes of adults has occurred during

the past several decades and it cannot necessarily be assumed that all parents feel strongly about the importance of postponing sexual activity.

To explore whether parent-child discussion and parental supervision have different effects on the incidence of sexual activity as a function of the parent's own attitudes, five measures of parental communication and monitoring were included in a multiple classiciation analysis. They include, the parent's report of the proportion of their child's friends that they know; the young person's assessment of whether his or her parents listen and discuss decisions; the adolescent's report of whether he or she discusses television with parents; the adolescent's report of whether he or she has discussed sex with a parent; and the parent's assessment of how good a place their neighborhood is for a child to grow up. Analyses were conducted separately for males and females.

In an initial set of analyses, the parent's traditionality was not explicitly considered. These analyses produced results explaining very small amount of variance and providing moderate to weak evidence that communication and supervision are associated with less sexual activity.

In a second set of analyses, the sample was divided according to whether the parent's attitudes about marriage and family, as expressed in the parent section of the interview, were either traditional or moderate to liberal. Dividing the sample in this way demonstrates that there is an association between communication and a lower incidence of sexual activity,

but only among daughters of more traditional parents who communicate with their daughters about sex and television. Only 3 percent of the daughters whose traditional parents discuss sex with them report having had sexual intercourse, compared to 20 percent of those daughters whose traditional parents have not communicated, 17 percent of the daughters with more liberal parents who do not communicate, and 21 percent of those whose more liberal parents do communicate.

Similar results are found for communication regarding television. Only 1 percent of the daughters of traditional parents who discuss television often or sometimes report having had sexual intercourse, compared to about one-fifth of the daughters in the other three groups.

Daughters of traditional parents who generally tend to listen and discuss issues are less likely to report having had sex in a bivariate analysis; but this association disappears when the variables measuring discussion of sex and television are added.

Among sons of moderate to liberal parents, as among the daughters of more liberal parents, parental communication bears no association with the incidence of sexual activity. Results for the sons of traditional parents indicate that the incidence of sexual activity is lower when sons feel their parents generally listen and discuss decisions with them. However, discussion of television has no effect, and the discussion of sexual topics is significantly but negatively related to the incidence of premarital intercourse. That is, when traditional

parents discuss sex with their sons, their sons are more likely to have had intercourse. The temporal ordering of the events cannot be ascertained with these data, unfortunately, so it is not clear whether the discussion precedes or follows the son's entry into sexual activity.

In line with similar studies, we find that parents are much more likely to discuss sex with their daughters than with their sons. Sixty-seven percent of the young women but only 17 percent of the young men report having had such discussions. We speculate, then, that the negative association between communication and sexual activity among the daughters of traditional parents occurs because of parental communication that encourages the daughters to postpone having sex, while the positive association among sons of traditional parents reflects communication that occurs after evidence of sexual activity is perceived by the parent. In other words, we suspect that sex doesn't come up for discussion with sons unless the parents perceive that it has become an issue -- a definition that seems more common among traditional than among more liberal parents.

Results of this analysis suggest several methodological issues for future studies. First, there is a need to obtain more detailed information on the timing and content of the communication that occurs with regard to sex. Moreover, it seems that a broad definition of how sex can be approached is appropriate, given our finding that discussion of television is as strongly associated with the postponement of intercourse as is discussion of sex per se. Also, we found that a measure of

the parent's attitude toward living together prior to marriage was less effective at discriminating the subgroups than was the more general measure of attitudes toward marriage and family reported here. Consequently the possibility that general family values are as or more important than specific attitudes should also be considered.

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Note on Deviant Activities

Initial analyses in one of the papers focussed on the association between deviant activities and early sexual activity. Since these analyses do not appear in the final version of the paper, the tables are presented here as Tables 1 through 3.

In Table 1, the bivariate assocation is presented for sexual activity and five measures of deviant activity: smoking, using alcohol, using marijuana, shoplifting, and running away. Among white females and white males, the proportion reporting they have ever had intercourse is strongly and almost without exception linearally related to a greater involvement in deviant activities. Among blacks we have reason to believe that considerable under-reporting of deviant activities exists (e.g., mean levels of deviant activities are noteably lower among blacks; the number of reported deviant activities is positively related to parental education among black youth; and few black

youth are reported to have engaged in any of the deviant activities. Hence it is impossible to really assess the association.

Table 2 reports the results of a multiple classification analysis among white youth in which the same set of independent variables was run against, first, a measure of the proportion sexually experienced and, second, a scale summing the youth's invovlement in the five deviant activities included in Table 1. Sexual intercouse is, of course, not identical to any of the deviant activities in question. In fact, an intimate relationship is in some ways the very opposite of stealing, running away, and the like. However, for the age group considered in this analyses, precocious sexual activity bears many commonalities with deviant behaviors. One would expect the similarities to be even greater if sexual activity at ages 13 and 14 were considered.

In general, comparing the predictors for the two dependent variables, it is striking how similar they are (and how much they echo numerous studies focussed on identifying the predictors of a variety of types of child outcomes): well-educated parents, both parents present, a good neighborhood, and an affectionate relationship with the parents.

Of the four sex/race groups, sexual activity is least frequent -- that is, most deviant -- among white females. Hence one might expect that an equation predicting sexual activity among adolescent white females would be fairly similar to an equation predicting deviant activities in the same sub-group;

and they are to some extent. Among white females, both outcomes are more likely in intact families when the daughter's relationship with her father is less close and in mother-only families in which the mother dates frequently. Both are also more frequent when parental education is low, when maternal affection is lower, and when the young woman's friends tend to be older. Neighborhood quality and educational aspirations are both related to sexual activity but not deviant activities, whereas maternal employment is not related to either outcome.

Among white males, closeness to the father does diminish the level of deviant activities, as does living with a step-parent or with a mother who dates relatively regularly. As noted in the paper entitled "Starting Early," summarized above, closeness to the father did not predict a lower level of sexual activity among white males, suggesting that the father/son relationship has different implications for deviant activities than for sexual activity. While having older friends also predicts to a higher level of deviant activity as well as a higher likelihood of sexual activity, none of the other variables are important predictors of deviant activities, and the model as a whole does slightly less well predicting deviant activity than it does predicting sexual activity.

Among black respondents, a problem with under-reporting is suggested, as noted above, by a negative association between parental education and the level of deviant activity. Other anticipated relationships are found -- for example, lower aspirations, lower maternal affection and a poorer neighborhood

all predict to a higher incidence of deviant activity -- but we hesitate to draw conclusions about black respondents in view of the under-reporting issue.

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Note on Religiosity

Although none of the analyses have employed religiosity in their final models, it is relevant to summarize our data on this issue, since religiosity is widely regarded as an important predictor of early sexual activity. Briefly, our data indicate a slight association between the child's attendance at religious services and activities and a lower probability of sexual activity among white females and black females, but not among males (see Table 4). Other measures of religious interest or commitment bear little association with the incidence of sexual activity (several variables are also shown in Table 4).

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Concluding Comment

Data in the National Survey of children were not collected specifically to study the issue of teenage pregnancy. Because of this, some information, such as detailed data regarding the timing of events, the specific content of communication regarding sex, the type of material studied in sex education, etc., is not known. However the richness of the data in other

respects has made it possible to address questions not previously approached. This fits in with a developing consensus that early sexual activity and pregnancy are affected by a wide range of family and community influences and consequently are best studied using data that take a broad perspective. It seems unlikely that a small and simple set of determinants will be clearly established, particularly a set that applies to all age, race, and sex groups. It is our hope that these analyses will demonstrate the usefulness of broadly conceived data bases such as the National Survey of Children.

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Table 1

Percent Sexually Experienced Among 15-16 Year-Olds, by Race and Sex of Teen, and Measures of Deviant Activities, 1981

	Non-Black Females	(n*)	Non-Black Males	(n*)	Black Females	(n*)	Black Males	(n*)
Smoked?								
Never	2	(57)	26	(75)	21	(30)	34	(30)
More than 2 weeks ago	12	(82)	23	(74)	45	(21)	34	(13)
Less than 2 weeks ago	39	(37)	61	(28)	45	(8)	74	(7)
Use Alcohol?								
Never	1	(55)	12	(47)	30	(34)	23	(27)
More than 2 weeks ago	19	(76)	25	(89)	33	(23)	73	(16)
Less than 2 weeks ago	27	(45)	44	(41)	--	(2)	40	(7)
Used Marijuana?								
Never	7	(124)	19	(124)	28	(41)	33	(43)
More than 2 weeks ago	19	(38)	42	(43)	32	(15)	--	(4)
Less than 2 weeks ago	62	(14)	74	(10)	--	(3)	100	(5)
Shoplifted?								
Never	13	(159)	24	(155)	31	(56)	35	(43)
Once	40	(10)	13	(16)	--	(2)	76	(6)
≥Twice	34	(7)	82	(6)	--	(1)	--	(3)
Run away in past 5 years?								
No	12	(165)	28	(167)	31	(58)	39	(52)
Yes	51	(11)	49	(10)	--	(1)	--	(0)

*Unweighted. Percents are based on weighted figures.

Source: Child Trends, Inc., The 1981 National Survey of Children

Table 2

Proportion Sexually Experienced and Level of Deviant Activity Among 15-16 Year-Olds, Net of Controls for Child, Family, and Neighborhood Characteristics, by Sex, Whites, 1981

	White Females		White Males	
	Sexual Activity	Deviant Activities Scale	Sexual Activity	Deviant Activities Scale
Family Structure				
Biological father in home and extremely or quite close	.08	7.7	.22	7.5
Biological father in home, but only fairly or not close	.17	8.7	.22	8.6
Mother and step-father	.41	8.5	.12	7.8
Mother only; mother dates frequently	.30	8.9	.04	7.6
Mother only; mother dates infrequently	.10	7.8	.12	9.2
Other family type	.26	8.0	.58	9.7
Age of Child				
15 Years Old	.12	7.9	.15	7.8
16 Years Old	.16	8.2	.27	8.1
Education of Better-Educated Parent in the Home				
< 12 years	.20	8.8	.21	7.9
≥ 12 years	.13	7.9	.20	8.0
Maternal Employment				
Not employed	.14	8.1	.22	8.0
Employed part-time	.16	7.4	.11	7.9
Employed full-time	.12	8.3	.25	7.9
Child's Perception of Neighborhood Quality for Children				
Excellent or very good, 1976 and 1981	.10	8.5	.17	7.9
Excellent or very good, 1981 only	.10	7.9	.24	7.9
Good, fair, or poor, 1981	.17	8.0	.20	8.0

Table 2 (Continued)

Proportion Sexually Experienced and Level of Deviant Activity Among 15-16 Year-Olds, Net of Controls for Child, Family, and Neighborhood Characteristics, by Sex, Whites, 1981

	White Females		White Males	
	Sexual Activity	Deviant Activities Scale	Sexual Activity	Deviant Activities Scale
Educational Aspirations				
Less than college	.15	8.0	.28	7.8
College graduation or higher	.12	8.0	.13	8.1
Maternal Affection Scale				
Low/medium	.15	8.4	.19	7.9
High	.12	7.4	.23	8.1
Grade Level of Child's Friends				
Higher-grade	.28	8.6	.40	8.5
Same or lower grade	.09	7.8	.16	7.8
N	167	167	165	165
Variation Explained	.22	.20	.19	.16
Adjusted R^2	.14	.12	.12	.08
Largest beta:	Family Structure	Affection	Family Structure	Family Structure
Second largest beta:	Friend's Grade	Family Structure	Friend's Grade	Friend's Grade
Third largest beta:	Neighborhood	Education	Aspirations	-

Table 3

Proportion Sexually Experienced and Level of Deviant Activity Among 15-16 Year-Olds, Net of Controls for Child, Family, and Neighborhood Characteristics, by Sex, Blacks, 1981

	Black Females		Black Males	
	Sexual Activity	Deviant Activities Scale	Sexual Activity	Deviant Activities Scale
Biological or Adoptive Father in the Home				
Yes	.30	7.7	.31	6.3
No	.33	7.2	.44	7.3
Age of Child				
15 Years Old	.29	7.4	.37	6.8
16 Years Old	.35	7.2	.42	6.8
Education of Better-Educated Parent in the Home				
<12 years	.39	6.3	.44	6.3
≥12 years	.25	8.3	.35	7.2
Maternal Employment				
Not employed	.39	7.4	.30	7.1
Employed	.20	7.1	.48	6.5
Neighborhood, Excellent or Very Good				
Yes	.23	6.9	.35	6.3
No	.37	7.5	.40	7.0
Educational Aspirations				
Less than college	.39	7.6	.63	7.7
College graduation or higher	.20	6.7	.29	6.4
Maternal Affection Scale				
Low/medium	.41	7.9	.38	6.9
High	.20	6.5	.42	6.5
N	59	59	52	52
Variance Explained	.22	.29	.13	.26
Adjusted R^2	.12	.20	0	.15
Largest beta:	Affection	Education	Aspirations	Aspirations
Second largest beta:	Aspirations	Affection	Employment	Father
Third largest beta:	Employment	Aspirations	Father	Education

Table 4

Percent Sexually Active, by Race and Sex, Among 15- and 16-Year-Olds, by Measures of Religiosity, 1981

	Black Males	Black Females	Non-Black Males	Non-Black Females
Child's Frequency of Attending Religious Services or Activities				
About once a week	34	20	23	15
At least once a month	58	49	26	0
A few times a year	(61)	(41)	19	25
Never	(27)	(41)	24	20
Child's Attitude About Attending Church or Synogogue				
Love	38	32	11	18
Like	36	32	38	17
No opinion	(37)	(0)	15	0
Dislike, hate	(45)	(54)	33	27
Parent's Frequency of Attending Religious Services/ Activities				
About once a week	51	23	23	14
At least once a month	16	33	4	6
A few times a year	(30)	57	32	16
Never	(39)	(32)	37	16

Note: Sample n's under 10 are in parentheses.